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ORACLE AMERICA, INC.

21 UNITED STATES DISTRICT COURT

22 NORTHERN DISTRICT OF CALIFORNIA

23 SAN FRANCISCO DIVISION

24 ORACLE AMERICA, INC.,

25 Plaintiff,

26 v.

27 GOOGLE INC.,

28 Defendant.

Case No. CV 10-03561 WHA

**ORACLE'S MOTION IN LIMINE #4
REGARDING GOOGLE'S DAMAGES
EXPERT, DR. GREGORY LEONARD**

Date: April 27, 2016 at 8:00 am

Dept.: Courtroom 8, 19th Floor

Judge: Honorable William H. Alsup

ORACLE'S MOTION IN LIMINE #4 RE:
GOOGLE'S DAMAGES EXPERT, DR. LEONARD

NOTICE OF MOTION, MOTION, AND STATEMENT OF RELIEF SOUGHT

TO ALL PARTIES AND THEIR COUNSEL OF RECORD: PLEASE TAKE NOTICE that the following Motion *in Limine* Regarding Google's Damages Expert Dr. Gregory Leonard will be heard on April 27, 2016, at 8:00 a.m., or as soon thereafter as counsel may be heard, in Courtroom 8, 19th Floor of this Court, located at 450 Golden Gate Avenue, San Francisco, California, the Honorable William Alsup presiding.

Plaintiff Oracle America, Inc. will, and hereby does, move this Court to exclude portions of the opinions and testimony of Defendant Google Inc.'s damages expert Dr. Gregory Leonard. This Motion is based on this Notice of Motion and Motion; the Memorandum of Points and Authorities below; the materials attached to the Declaration of Andrew D. Silverman (cited hereinafter as "Ex. ___") that are being filed herewith; the record in this matter; and such other and further papers, evidence, and argument as may be submitted in connection with this Motion.

Dated: March 23, 2016

Orrick, Herrington & Sutcliffe LLP

By: /s/ Annette L. Hurst
Annette L. Hurst

Counsel for ORACLE AMERICA, INC.

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MEMORANDUM OF POINTS AND AUTHORITIES

INTRODUCTION

Dr. Leonard offers six disgorgement-of-profits calculations; each is fatally flawed. His first four disgorgement calculations, which he calls his “bottom-up” approach, are improperly based on counterfactuals, as is his causation analysis. The device used to construct these counterfactuals is “non-infringing alternatives” (“NIAs”)—i.e., what Google supposedly *would have done* instead of copying the declaring code and SSO of Oracle’s 37 Java API packages. This Court already ruled that NIAs have “nothing to do with [disgorgement].” ECF 632 at 7. Dr. Leonard ignored this order, which is Ninth Circuit law, and instead relied on NIAs at every turn. *See, e.g.*, Ex. 4 (Op. Rpt.) ¶ 20 (“causal nexus” element of disgorgement), ¶ 174 (“apportionment” element of disgorgement), ¶ 51 (deduction-of expenses element of disgorgement). As this Court has held, NIAs are irrelevant to disgorgement and opinions based on them are inadmissible.

Dr. Leonard’s two remaining disgorgement calculations (his “top-down” approach) should also be excluded. These calculations consist of simplistically comparing the number of lines of Oracle’s code copied into Android and the total number of lines of code in Android, apportioning on a line-per-line basis. *Id.* ¶¶ 197-202. Valuing each line of code equally contravenes established law and is contrary to the evidence showing the importance of Oracle’s code.

Dr. Leonard’s expense deduction should independently be excluded because he, first, improperly estimates traffic acquisition costs (“TAC”) instead of relying upon Google’s books, and, second, double counts TAC, reducing Android’s profits. Google has the burden of proof on its expenses; it failed to produce documents sufficient to demonstrate its TAC costs, and cannot now use an expert to estimate what is actually contained in its records. Further, by deducting TAC while not accounting for its revenue, Dr. Leonard improperly double counts the deduction.

I. DR. LEONARD’S DISGORGEMENT OPINIONS BASED ON NON-INFRINGEMENT ALTERNATIVES SHOULD BE EXCLUDED AS LEGALLY IRRELEVANT

The Copyright Act provides for three distinct monetary remedies: actual damages, statutory damages, and infringer’s profits (disgorgement). *Polar Bear Prods., Inc. v. Timex Corp.*, 384 F.3d 700, 707-08 (9th Cir. 2004) (as amended) (citing 17 U.S.C. § 504(b)). Section 504(b) cre-

ates a two-step framework for disgorgement: (1) the copyright owner presents proof of the infringer's gross revenue that is "reasonably associated" with the infringement (i.e., causal nexus), and (2) the infringer then presents proof of deductible expenses and the elements of profit attributable to factors other than the copyrighted work (i.e., apportionment). *Id.* at 711, 715. In performing apportionment in the second step, doubts are resolved in favor of the copyright holder. *Frank Music Corp. v. MGM Inc.*, 886 F.2d 1545, 1549 (9th Cir. 1989) ("*Frank Music II*").

Dr. Leonard relies on NIAs throughout his analysis, including in contending that there is no causal connection between the 37 Java API packages and Google's profits, § I.A, in his "bottom-up" apportionment analysis, § I.B., and in identifying expense deductions, § I.C. The Court, however, has already rejected Google's attempt to use NIAs to limit Oracle's recovery of infringer's profits. Prior to the first trial, Google's former copyright damages expert, Dr. Alan Cox, relied heavily on NIAs in his expert report—just as Dr. Leonard does now.¹ After briefing on the motion, the Court excluded Dr. Cox's opinions based on NIAs (ECF No. 632 at 7):

Not acceptable, however, is allowing the existence of non-infringing alternatives to reduce recovery of wrongful profits. This is a distinct remedy for the purpose of *disgorgement*. Non-infringing alternatives have nothing to do with this.

The Court's decision was and is correct. The Ninth Circuit held in *Frank Music Corp. v. MGM, Inc.*, 772 F.2d 505, 510 (9th Cir. 1985) ("*Frank Music I*"), that NIAs have no probative value in disgorgement. The MGM Grand Hotel performed five songs from plaintiff's musical in a theatrical show. MGM argued that the songs (making up only about six percent of the show) were an insignificant part of the show because the show "suffered no decline in attendance" when the infringing songs were removed. *Id.* at 518. The Ninth Circuit rejected this NIA argument (i.e., a comparison to a show from which the infringing songs were removed), reasoning that "[j]ust because one element could be omitted and the show goes on does not prove that the element was not important in the first instance and did not contribute to establishing the show's ini-

¹ See, e.g., Ex. 29 (Cox Op. Rpt.) at 2 (Because "Google apparently had very close non-infringing substitutes readily at hand," "Google did not gain" from the infringement); *id.* at 23 ("[The existence of non-infringing alternatives] reduces the benefits, if any, that could be considered attributable to Google's alleged copyright infringement."); *id.* at 38 ("The ready availability of obviously acceptable non-infringing alternatives also provide basis that the 'element of profit' that is attributable to the allegedly infringed API claim contained in the Android framework is very small or zero."); see also *id.* at 16, 28, 35.

1 tial popularity.” *Id.* On subsequent appeal, the Ninth Circuit held that the plaintiff could recover
 2 a broad array of profits from the infringement, including “hotel and gaming operations [profits]
 3 attributable to the promotional value of [the show],” because there was a “sufficient nexus with
 4 an infringing performance in the hotel’s showroom to justify attributing some percentage of the
 5 hotel’s profits to the infringement.” *Frank Music II*, 886 F.2d at 1550, 1553-54.

6 Similarly, in *Computer Associates International v. Altai, Inc.*, 775 F. Supp. 544, 552
 7 (E.D.N.Y. 1991),² Altai copied substantial portions of Computer Associates’ software into its
 8 own program. Altai’s damages expert opined that Altai’s profits attributable to the infringement
 9 could be measured in part by calculating “the money Altai saved in developing [its program]
 10 through the infringement.” *Id.* at 568. The court disagreed (at 571):

11 A basic flaw of the [expert] opinion on Altai’s profits is that it simply disregards
 12 the statute. [Altai’s expert] works from a premise of a hypothetical, infringement-
 13 free world and concludes that Altai’s profits are represented by the money saved
 14 through developing OSCAR by infringement This approach simply ignores the
 statutory purpose of the profits factor of damages, which is to deprive the infringer
 of any extra benefits it receives that are attributable to the forbidden conduct.

15 As these cases make clear, permitting Dr. Leonard to use NIAs to calculate disgorgement would
 16 undermine the purposes of disgorgement, which are: (1) to ensure the infringer does not benefit
 17 from a wrongful act and (2) to deter would-be infringers. *Polar Bear*, 384 F.3d at 708; *see also*
 18 *Bucklew v. Hawkins, Ash, Baptie & Co.*, 329 F.3d 923, 931 (7th Cir. 2003) (Posner, J.) (“Copy-
 19 right infringement[,] unlike patent infringement[,] is an intentional tort, and by forcing the in-
 20 fringer to disgorge his profit should it exceed the copyright owner’s loss[,] the law discourages
 21 infringement and encourages the would-be infringer to transact with the copyright owner rather
 22 than ‘steal’ the copyrighted work.”).

23 Dr. Leonard’s NIA counterfactual approach has the economic effect of a get out of jail
 24 free card. But an infringer benefitting from an unlawful act is precisely what disgorgement was
 25 meant to curtail. By copying another’s work, the infringer assumes the risk of its actions. Per-
 26 mitting Dr. Leonard’s approach would instead gut the disgorgement remedy, reducing it to merely
 27 the cost of the infringer’s cheapest alternative after the infringer is caught red-handed. As Dr.

28 ² *Vacated in part on other grounds*, 982 F.2d 693 (2d Cir. 1992).

Leonard himself recognized when he twice assailed the use of NIAs in patent cases,³ this would in turn decrease the value of intellectual property and ultimately discourage innovation. To avoid those consequences, Congress designed § 504(b) so that an infringer, like Google, would still be required to disgorge its profits reasonably associated with the infringement, even if it has an argument that it could have made the exact same profits without infringing. *See Polar Bear*, 384 F.3d at 715. The copyright infringer must bear the risk of uncertainty.

Because NIAs are irrelevant to disgorgement as a matter of law, neither Dr. Leonard nor any other witness should be permitted, directly or indirectly, to rely on NIAs, testify about them, or refer to them at trial in connection with disgorgement. Fed. R. Evid. 401, 402; *see Hebert v. Lisle Corp.*, 99 F.3d 1109, 1117 (Fed. Cir. 1996) (“Incorrect statements of law are no more admissible through ‘experts’ than are falsifiable scientific theories.”).

A. Dr. Leonard’s Causation Opinion Relies On NIAs And Should Be Excluded

Dr. Leonard explicitly bases his disgorgement causation opinion on NIAs. Ex. 4 (Leonard Op. Rpt.) ¶ 19. In assessing whether a causal nexus exists between Google’s use of the 37 Java API packages and Google’s profits, Dr. Leonard declares it necessary to analyze “Google’s best course of action *had it not used* the allegedly infringing material.” *Id.* ¶ 20. As discussed, the Court already determined that Google *may not* rely on such counterfactuals in its disgorgement analysis. The parties fully litigated this issue before the first trial, and the order on the issue is as sound now as it was then.⁴ The Court should not deviate from this law of the case.

³ Dr. Leonard co-authored at least two articles criticizing use of NIAs in patent damages calculations. One article concludes that NIAs improperly permit an infringer to assert that “it would have switched to the non-infringing technology in the but-for world, thereby effectively making the switch retroactively.... As a consequence, the returns to research and development are negatively affected and the incentives to innovate are decreased.” Jerry Hausman & Gregory K. Leonard, *Real Options and Patent Damages: The Legal Treatment of Non-Infringing Alternatives, and Incentives To Innovate*, 20 Journal of Economic Surveys 493, 495 (2006); accord Jerry A. Hausman, Gregory K. Leonard & J. Gregory Sidak, *Patent Damages and Real Options: How Judicial Characterization of Noninfringing Alternatives Reduces Incentives to Innovate*, 22 Berkeley Tech. L. J. 825, 826-27 (2007). These articles apply with even greater force to copyright disgorgement because copyright infringement is an *intentional* tort.

⁴ Dr. Leonard asserts that Oracle’s expert, James Malackowski, “appears to agree” that the “causal nexus analysis requires the identification of a counterfactual” because he observed “that Google had no non-infringing alternatives to using the allegedly infringing materials.” Ex. 4 (Leonard) ¶ 21. This is not so. Mr. Malackowski discusses the alternatives that Google *considered and rejected* in the “*actual world*” to support his opinion that the 37 Java API packages were important to Android. Malackowski 1st Rpt. (1/8/16) ¶¶ 232-38. Mr. Malackowski does not as-

B. Dr. Leonard's Bottom-Up Apportionment Opinions Rely On NIAs And Should Be Excluded

Dr. Leonard confirmed at his deposition that his four bottom-up apportionment calculations rely on “availability of a non-infringing alternative.” Ex. 31 at 58. Dr. Leonard’s first three calculations are a cost-savings approach, and his fourth is an incremental approach.

Cost Savings Approaches. Dr. Leonard describes his bottom-up approach as measuring “cost-savings for Google by allowing Google to avoid taking certain costly actions.” Ex. 4 (Op. Rpt.) ¶ 174; *see id.* ¶¶ 174-96. Under this approach, Dr. Leonard posits that, had Google not used Oracle’s copyrighted work, Google would have successfully built Android anyway by implementing one of three NIAs, and thus should be liable only for the cost of the cheapest alternative: (1) “licensing the allegedly infringing work under the OpenJDK”; (2) “paying for developers to be trained in another programming language”; or (3) “paying for application development.” *Id.* ¶ 174. This avoided costs analysis is not even a measurement of profits to be disgorged. This is classic NIA analysis. Dr. Leonard opines that the amount of profits attributable to the infringement is the cost of the cheapest of those non-infringing alternatives, which he calculates as between \$85,000 and \$100 million. *Id.* ¶¶ 178-84. Dr. Leonard’s opinions based on an NIA “cost-savings” approach should be excluded. *Supra* at 1-4.

Alternative Bottom-Up Approach. Dr. Leonard also proffers an alternative bottom-up approach, which he describes as measuring incremental Android-related profit. Ex. 4 (Op. Rpt.) ¶¶ 185-96. This approach uses an econometric model from an unpublished Ph.D dissertation to model a counterfactual world where Google relied on some *unspecified* non-infringing alternative (the “Kim Model”).⁵ Dr. Leonard then calculates the effect on Android’s value, assuming that non-infringement meant fewer Android apps and fewer Android sales and that the iPhone would capture those decreased sales (and Google would earn revenue through revenue sharing with Apple). *Id.* ¶¶ 185-87. The Kim Model, which values this NIA at “no more than \$203 million,” *id.* ¶ 195, should also be excluded for relying on NIAs—even worse than the others, they are an in-

sume a counterfactual world nor does he use counterfactuals in his disgorgement analysis. *See, e.g.,* Ex. 30 (Malackowski Dep.) at 379:3-12.

⁵ Min Jung Kim, *Essays on the Economics of the Smartphone and Application Industry* (2013).

1 determinate range on a curve and therefore cannot be tested at all against the record evidence.

2 Dr. Leonard's alternative bottom-up approach should be excluded for three additional and
 3 independent reasons. First, it relies on the Kim econometric model that does not "fit" the facts of
 4 this case. *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999); *Concord Boat Corp. v.*
 5 *Brunswick Corp.*, 207 F.3d 1039, 1057 (8th Cir. 2000). Leonard uses the model to purport to es-
 6 timate how Android profits would change if, *in the non-infringing world* in which Google did not
 7 use the infringing APIs, there were fewer Android apps available for consumers. Ex. 4 (Op. Rpt.)
 8 ¶ 185. However, the model relies on *actual, real-world* app statistics for *infringing Android*. *Id.*
 9 ¶¶ 186, 191-92; Ex. 10 (Jaffe Reply Rpt.) ¶¶ 75, 80. In other words, the model itself relies on da-
 10 ta that is tainted by the very infringement it seeks to remove from the damages analysis. It as-
 11 sumes the infringement away with one hand, and then sweeps it back in with the other. It is also
 12 a bad "fit" because the model starts from the premise that Android was already a success, in that
 13 it relies on data from 2010-2011, when Android was already established in the market, instead of
 14 2007-2009, the critical period when Android's fate was uncertain. Ex. 10 (Jaffe Reply Rpt.) ¶ 80.

15 Second, the untested econometric Kim model cannot be examined. *See* Ex. 4 (Leonard)
 16 ¶ 188. Dr. Leonard admitted in deposition that he was missing a crucial coefficient, σ^2 , that
 17 was not in Dr. Kim's paper, and that Dr. Leonard discovered the sigma value through emails be-
 18 tween his staff and Dr. Kim. Ex. 31 (Leonard Dep.) 373:13-24. The full exchange—produced
 19 *after* the deposition—shows that Dr. Leonard requested other information from Dr. Kim and did
 20 not get it, and that Dr. Leonard did not verify the information he did receive. *See* Ex. 28 (email
 21 exchange between Drs. Leonard and Kim). Dr. Kim's econometric model is a central "fact" un-
 22 derlying Dr. Leonard's analysis, but she is in Korea and beyond the Court's subpoena power.

23 Third, Google should not be permitted to hide behind an econometric model to estimate
 24 what Google paid other providers when Google knows that information and refused to produce
 25 documents critical to understanding those arrangements. ECF 1436 (denying Oracle's motion to
 26 compel non-Android revenue sharing documents Google refused to produce). Google revenue-
 27 sharing agreements may reveal crucial terms that refute the Kim model, such as volume caps,
 28 volume escalators, or other terms affecting Google's revenue sharing. By refusing to produce the

1 agreements, Google prevented Oracle from inquiring into real terms relevant to the counterfactu-
 2 al. Using “weak evidence,” like expert estimates, “when strong [evidence] is available can lead
 3 only to the conclusion that the strong would have been adverse. Silence then becomes evidence
 4 of the most convincing character.” *Interstate Circuit v. United States*, 306 U.S. 208, 226 (1939).

5 **C. Dr. Leonard’s Expense Deductions Rely On NIAs And Should Be Excluded.**

6 Once again positing a speculative counterfactual (this time one in which Android does not
 7 exist), Dr. Leonard deducts \$6.5 billion from Google’s Android revenues the money Google al-
 8 legedly *would have earned* through advertising on non-Android mobile operating systems. Ex. 4
 9 (Op. Rpt.) ¶¶ 50-52, Ex. 1a.3. This is another attempt to introduce NIAs into disgorgement; only
 10 the NIA this time is that Google *did not build Android* but instead partnered with Apple for
 11 Google’s products and advertising to be on iPhones. This revenue-recapture method (dubbed an
 12 “opportunity cost”) is irrelevant for the same reasons as the other NIA approaches: It has nothing
 13 to do with disgorgement under § 504(b). ECF 632 at 7. It is not based on the money Google ac-
 14 tually made and the effect that Google’s infringement actually had on its profits. It instead as-
 15 sumes a world of no infringement, so an economist can hypothesize how much Google might
 16 have made anyway and then work backwards to what Google actually made. This is just the sort
 17 of argument this Court already rejected, *id.*, and that the Ninth Circuit rejected in *Frank Music I*,
 18 772 F.2d at 518 (rejecting analysis of the show after infringing songs were removed).

19 This revenue recapture method should be excluded for additional and independent rea-
 20 sons. First, Dr. Leonard uses a “diversion ratio” of 44% to calculate this recapture, but provides
 21 no basis for this figure. Ex. 4 (Op. Rpt.) ¶ 51, Ex. 1b. Dr. Leonard’s notes in his Exhibit 1b refer
 22 to Exhibit 3d2 for more on the ratio, but Exhibit 3d2 contains the same percentage without further
 23 explanation. *See General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (“But nothing in either
 24 *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that
 25 is connected to existing data only by the *ipse dixit* of the expert.”). Second, Google refused to
 26 produce the relevant documents and cannot rely on their unknown content now. *Supra* at 6.

27 **II. DR. LEONARD’S TOP-DOWN ANALYSIS SHOULD ALSO BE EXCLUDED**

28 Dr. Leonard’s other apportionment method is dubbed his “top-down approach.” This the-

1 ory creates a fraction with the Java API packages as the numerator and other code as the denomi-
2 nator. In one iteration, Dr. Leonard takes the total number of lines of code Google copied
3 (12,774), divides by the total number of lines in Android (1.53 million), and multiplies that per-
4 centage by what Dr. Leonard claims are Android's profits. Ex. 4 (Op. Rpt. Leonard) ¶¶ 198, 200.
5 In another iteration, Dr. Leonard uses as the denominator the number of lines of code in Android
6 (1.53 million) plus those in Google's primary search code base (1.7 million) plus those in
7 Google's primary ads code bases (48.5 million) and multiplies that percentage by what Dr. Leon-
8 ard claims are Android's profits. Ex. 4 (Op. Rpt. Leonard) ¶ 202. Both approaches value each
9 and every line of code equally with no attempt to assess relative importance. Both approaches are
10 unreliable and indefensible as a matter of law.

11 Numerous courts, including the Ninth Circuit, have rejected apportionments that make
12 across-the-board valuations without accounting for the relative significance of the work in ques-
13 tion. *Frank Music II* questioned a valuation that found plaintiff was entitled to 10% of defend-
14 ant's profits simply because plaintiff's copyrighted work was 10% of defendant's show. 886 F.2d
15 at 1548. Although it ultimately found the evidence supported the valuation, the Ninth Circuit
16 held: "If the district court relied exclusively on a quantitative comparison and failed to consider
17 the relative quality or drawing power of the show's various component parts, it erred." *Id.*

18 In the software context, this Court (Grewal, J. presiding) upheld a \$60 million verdict
19 based on 145 infringing lines of code out of 10 million lines. As here, the defendant proposed to
20 apportion based on "the ratio between the 145 lines of infringing code and the 10 million lines of
21 code in [plaintiff's] product," but Judge Grewal rejected that approach because "that ratio fails to
22 account for the evidence suggesting the importance of the implementing code to [defendant's]
23 software." *Brocade Commc'ns Sys., Inc. v. A10 Networks, Inc.*, No. C 10-3428 PSG, 2013 WL
24 831528, at *8 (N.D. Cal. Jan. 10, 2013). The *Altai* court similarly refused to adopt defendant ex-
25 pert's pro rata lines of code apportionment because it failed to account for the fact that "[t]he sig-
26 nificance or the value of the copied material is not necessarily measured by counting lines of
27 code; their qualitative value should also be taken into account." 775 F. Supp. at 571-72.

28 Dr. Leonard bases his conclusion that each line of Java API code is no more significant

1 than the average of every other line of code on his own unqualified technical opinions about the
 2 value of the 37 Java API packages. He concludes: “Thus, at a high level, there is nothing signifi-
 3 cant that is unique about the 37 API packages at issue from a programming language perspec-
 4 tive.” Ex. 4 (Op. Rpt.) ¶ 198. Dr. Leonard, an economist, is not qualified to opine on technical
 5 matters. *Jinro Am. Inc. v. Secure Invs., Inc.*, 266 F.3d 993, 1004 (9th Cir. 2001) (expert can offer
 6 opinion only within “the knowledge and experience of *his discipline*” (quotation marks omitted)).

7 Moreover, that conclusion is refuted by the record. Dr. Leonard asserts that the declaring
 8 code and SSO of the 37 Java API packages are not more significant than other code because he
 9 has “seen no evidence” about any additional value. Ex. 4 (Op. Rpt.) ¶ 198. Willful blindness
 10 does not support a reliable damages analysis. Dr. Leonard claims that he reviewed the transcript
 11 from the first trial. Certainly, then, he would have seen Tim Lindholm’s email concluding that
 12 the alternatives to the Java API packages “all suck” and that Google “need[s] to negotiate a li-
 13 cense for Java.” TX 10. Dr. Leonard must have seen the many internal Google emails in which
 14 Google executives and engineers lauded the Java works that Google copied. *See, e.g.*, TX 13 at
 15 1-2 (email from Senior Android engineer) (the “[r]easons to shift to a primarily Java API,” in-
 16 clude that “[J]ava provides a nice safetynet and faster app development and debuggability” and
 17 “[t]he nature of the cellular market is that we are *required* to have [J]ava due to carrier require-
 18 ments”).⁶ Dr. Leonard also ignores Google’s presentations to OEMs and carriers that touted An-
 19 droid as including “Core Java Lib[rairie]s” as part of the mobile stack. *See, e.g.*, Ex. 12 at 540.

20 Nor may Dr. Leonard rely on Google’s technical expert (Dr. Astrachan) to support the
 21 opinion that the copied portions of the 37 Java API packages are merely insignificant, fungible
 22 lines of code. In fact, Dr. Astrachan testified exactly *opposite*: “not all code is the same”; “there
 23 are going to be APIs on which you rely more heavily than others, both in a quantitative and in a
 24

25 ⁶ *See also* TX 1 at 8 (Android presentation) (Java has an “Existing pool of developers and appli-
 26 cations,” “Carriers require it,” and there is an “Elegant tools story.”); TX 7 at 1 (Android Chief to
 27 Google co-founder Page: “Android is building a Java OS [operating system] ... [and] making
 28 Java central to our solution[.]”); TX 11 at 2 (Java is “a key component of the [Android] plat-
 form”); TX 15 at 7 (Android presentation) (Java APIs “[c]ritical” to Android “strategy”); TX 21
 (Android engineer) (“leverage not only existing developers, but applications as well” for An-
 droid); TX 22 at 5 (Java “[d]ramatically accelerates [Android’s] schedule”); TX 238 at 1 (Java
 “enable[s] all [the] Java developers to quickly leverage their skills to build great Android apps”).

1 qualitative way.” Ex. 24 (Astrachan Dep.) at 166:14-168:20. The cited portions of Dr. Astra-
 2 chan's report have nothing to do with relative value of the Java API packages in Android.⁷

3 **III. DR. LEONARD DOUBLE-COUNTS TRAFFIC ACQUISITION COSTS**

4 Dr. Leonard double-counts traffic acquisition costs (“TAC”) when deducting expenses
 5 from Android revenues. TAC is the portion of ad revenue that Google pays to its partners (e.g.,
 6 Apple, Samsung, Verizon) in exchange for setting Google as the default search engine. Ex. 4
 7 (Leonard Op. Rpt.) ¶ 32; Malackowski Op. Rpt. (1/8/16) ¶ 152. During this suit, sometime in
 8 2011 and without explanation, Google stopped reporting Android ad revenue on its Android prof-
 9 it and loss (“P&L”) statements. Ex. 4 (Leonard Op. Rpt.) ¶ 33. While Google stopped reporting
 10 ad revenue on its Android P&L, it apparently kept some of the costs (TAC), just in a different
 11 category. Malackowski 2nd Rpt. (2/8/2016) ¶ 71; Ex. 30 (Malackowski Dep.) 162:12-165:5.

12 Therefore, when Dr. Leonard deducts TAC in the amount of \$1.8 billion, he is doing it twice be-
 13 cause TAC (without the revenue) is already on the P&L. Malackowski 2nd Rpt. (2/8/16) ¶ 65-66.

14 Google has the burden to prove its costs, 17 U.S.C. § 504(b), and “uncertainty over profits
 15 because of inadequate recordkeeping ... should be resolved in plaintiff’s favor,” 5-14 Nimmer on
 16 Copyright § 14.03 (citing *Hamil Am. Inc. v. GFI*, 193 F.3d 92, 107 (2d Cir. 1999)). Google
 17 knows how much it pays in TAC, because it pays its OEM and carrier partners. Ex. 30 (Malack-
 18 owski Dep.) at 180:10-15; *see also* Ex. 4 (Leonard Op. Rpt.) ¶ 32. If Google no longer keeps ad-
 19 equate records of aggregate TAC and refuses to produce relevant revenue sharing agreements, *see*
 20 ECF 1436, the uncertainty over TAC deductions should be resolved in Oracle’s favor, requiring
 21 exclusion of Dr. Leonard’s proposed \$1.8 billion expense deduction.

22 **CONCLUSION**

23 Accordingly, the above-discussed portions of Dr. Leonard’s opinions should be excluded.
 24

25 ⁷ Dr. Leonard’s report (Ex. 4 ¶¶ 198-99) cites to a few paragraphs of Dr. Astrachan’s technical
 26 report, but there is no support for Dr. Leonard’s opinions there. Those paragraphs from Dr.
 27 Astrachan describe other APIs Google built for Android (Ex. 1 ¶¶ 119-20), opine on Google’s
 28 purported transformative use of the 37 packages (*id.* ¶ 141), argue that the nature of the copy-
 righted work is functional (*id.* ¶¶ 154, 182-202), and assert that some elements of the 37 API
 packages are drawn from the public domain (*id.* ¶¶ 17-18, 203-220). They do not opine that the
 copied code has no more value or significance than other lines of code.

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Respectfully submitted,

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